SATURDAY, APRIL 25, 1874.

ORIGINAL LECTURES.

REPORT OF TWO CLINICAL LECTURES ON THE RELATION OF RENAL DISEASE AND HEART-DISEASE.

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Reported by Louis Starr, M.D.

II.—KIDNEY-DISEASE TO HEART-DISEASE.

GENTLEMEN,—You will remember that at the last lecture we were engaged in considering combined cardiac and renal disease, and that your attention was then directed to the more rarely-detected form of the combined affection,—that in which the primary lesion lay in the heart. I propose then, to-day, to take up the second part of the subject, and will first bring before you a case in which disease of the kidneys has led to alteration in the heart.

The patient has been under observation for several years, and presents the following history:

Samuel —, 27 years of age, a baker by occupation, was admitted to the Philadelphia Hospital on June 2, 1871. He had always been perfectly temperate in habits, and, although a hard-working man, rarely became over-fatigued, and never exposed himself unduly to atmospheric changes. He has a healthy family history, and enjoyed remarkably good health until the spring of 1871, when he noticed that he was obliged to rise several times every night to void his urine, and that he had attacks of palpitation of the heart, and shortness of breath after exertion. Notwithstanding the continuance of these symptoms, he was able to work until June 1, 1871, when, without apparent cause, his eyelids became puffy, his legs began to swell, and he became very much prostrated. After admission the œdema extended rapidly, and in a few days involved the thighs, scrotum, and lower part of the abdomen. There is no exact information as to the presence of blood in his urine, but it is known to have been high-colored, albuminous, and diminished in quantity, the amount passed ranging from 450 to 900 cubic centimetres (15 to 30 oz.) per diem.

Under appropriate treatment he gradually improved, and on August 15, 1871, when he first came under my observation, was able to walk about the ward, all trace of œdema and ascites having disappeared. The urine at this time was normal in quantity, light-colored, had a sp. gr. of 1015, and contained an amount of albumen equal to one-third of the bulk of fluid tested, while the microscope revealed epithelial and granular casts and a few free epithelial and compound granule-cells.

From this date the improvement was continuous, and on May 15, 1872, with the exception of being easily fatigued, he had regained his usual health. The urine was again examined, and found to present the following characters: in quantity normal; color pale yellow; reaction acid; sp. gr. 1020; slight deposit of uric acid; large flocculent deposit of mucus, in which granular casts, occasional hyaline casts, and, more rarely, casts containing the nuclei of epithelial cells, were observed; amount of albumen, one-fifth of bulk tested.

An ophthalmoscopic examination was made by Dr. C. B. Nancrede, but no alteration was discovered in the retinæ.

The patient remained in this condition, being employed as nurse in the hospital, until March 27, 1873, when he began to suffer from headache, pain in the lumbar region, and a tendency to pyrexia in the evening. On testing the urine, the albumen was found to be increased to one-fourth of the bulk, and the microscope revealed numerous epithelial and hyaline casts, together with casts containing small oil-globules and a few blood-casts; some free blood-corpuscles and crystals of uric acid and oxalate of lime were also observed; the blood-corpuscles, however, were not sufficiently abundant to affect the color of the urine. These symptoms increased rapidly in severity, and on April 4 there were severe headache, intense pain in the lumbar region, œdema of the legs, frequent pulse, and augmented surface-temperature, the latter rising towards evening as high as 103° Fahr. The urine was highly albuminous, and was now plainly bloody to the naked eye; it was much reduced in quantity, 480 cubic centimetres (16 oz.) only being passed in twenty-four hours. Dry cups were applied over the kidneys, ice-bladders placed on the head, and the patient ordered, in addition, steam-baths, free purgation, and small doses of nitrate of potash and tincture of digitalis. Under this treatment the symptoms began to abate, and on April 6 Basham's mixture was substituted for the other medication. On the 7th, however, traces of erysipelas appeared about a small scalp-wound which had been received nineteen days before, and gradually spread, involving the right side of the head and face. He slowly recovered from this attack, and on April 25 was able to be out of bed, the œdema of the legs having entirely disappeared. On inspecting the urine at this date it was found to have the following characters: quantity normal, sp. gr. 1024, color light yellow, reaction acid, quantity of albumen small, scarcely sufficient to fill the concavity of the test-tube; numerous epithelial, granular, and hyaline casts were detected by the microscope.

From this time up to the present he has been employed about the hospital, and has remained in good health, except that he has had palpitation and dypsnœa after unusual exertion.

On examining the chest, slight bulging of the præcordia is observed, the area of cardiac dulness is increased, and the apex-beat, which is situated two inches below and a short distance outside of the line of the left nipple, is strong and heaving. No valvular murmur can be detected.

His general health is good; he has no calls to urinate during the night, and if it were not for the occasional attacks of palpitation and dyspnœa he would consider himself a perfectly well man. But when the urine is tested with nitric acid and heat, a precipitate of albumen, equal to one-fifth of the bulk of fluid, is thrown down, and when examined by the microscope a few granular casts can be seen. The latter conditions show that the kidneys have undergone permanent alteration, while the palpitation and dyspnœa are but too certain evidences of commencing heart-failure.

In all cases of combined renal and cardiac disease, in order that there may be a proper foundation on which to base the treatment, it is essential to determine—1, which organ is primarily affected; and 2, the exact nature of the alteration. This can only be done by careful investigation of the clinical

history of each case as it presents itself; and although it is easy to solve the first portion of the problem, it is sometimes difficult, especially when the disease has originated in the kidneys, to discover the extent and character of the structural change.

The form of kidney-disease which most usually gives rise to secondary heart-lesion is chronic contraction, or cirrhosis. In this condition the whole of the kidney is wasted, but the cortical or secreting portion most markedly so. The organ is small, hard, and pale, the capsule adherent, and the Malpighian bodies smaller and less numerous than in health, while the small arteries are more prominent, due to thickening of their walls. When a section of the cortical portion is examined microscopically, the renal tubules are observed to be shrunken and devoid of epithelium, and the interstitial fibrous tissue situated between them is increased. The amount of this fibrous tissue is small in the normal kidney, and its increase, according to Johnson and Beale, depends upon rapid destruction of the tubular structure, and not upon inflammatory proliferation of the stroma itself, as stated by Virchow and others. The former authors also maintain that the so-called stroma does not exist in the young kidney, but that it is developed as portions of the secreting structure become useless and are converted into fibrous intertubular substance. That the elements of connective tissue are present in the normal kidney, I can attest from the constant presence of connective-tissue corpuscles which I have met in many examinations; but that this tissue is present in minimum amount, so that it contributes in no way to the bulk or to the formation of a so-called stroma for the organ, I am equally certain. It appears to me, therefore, that we must admit the possibility of an inflammatory increase of these elements, as we admit and often see their increase in interstitial inflammations of the lung where connective tissue is primarily present in small quantity, though more abundant than in the kidney. But while admitting this as one of the modes of origin of the increased amount of fibrillated tissue between the tubes in the contracted kidney, I also believe, with Johnson and Beale, that the atrophy of the tubules and the destruction of their cellular contents contribute as well to the increase.

Before proceeding to explain the manner in which such changes produce alteration in the heart, it will be well to consider briefly the peculiarities of the renal circulation as accurately determined by Virchow. After entering the kidney the renal artery divides into three sets of branches, of which one set, belonging to the middle and outer portion of the cortical substance, goes exclusively to form the *afferent* vessels, which, entering the Malpighian capsules, divide to form the capillaries of the glomeruli; these reunite to leave the Malpighian capsule as *efferent* vessels, after which they again break up into capillaries once more to reunite as renal veins. At the boundary between the cortical and pyramidal portions there is a sort of neutral ground on which there are arteries from which branches arise, some passing through the course described, except that the efferent vessels, instead of becoming a second time capillary, send off long offshoots (vasa recta) down into the cortical and medullary substances, and others which act directly as nutrient vessels for the medullary substance. Finally, there is a third set of branches of the renal artery which do not go to form glomeruli at all, but whose function is simply the nutrition of the medullary substance.

The water is filtered out in the glomeruli by simple blood-pressure or *vis a tergo*, in connection with the resistance which the blood meets in the glomeruli and narrow efferent vessels. Even under normal conditions this pressure is considerable, the renal artery being short and of disproportionately large calibre. The water thus eliminated passes down the tubuli uriniferi, and in filtering from cell to cell becomes charged with the solids of the urine which are removed by the cells in the convoluted tubules from the thickened blood in the second capillary network,—partly (inorganic principles) by simple osmosis, and partly (organic constituents) by a real act of secretion. Any increase in this pressure would be followed by an increase in the bulk of fluid removed: thus, if the abdominal aorta were tied below the origin of the renal arteries, the arterial tension would be increased and the amount of water greatly augmented, but there would be no albumen or casts. If, on the contrary, a ligature were placed around one of the renal veins, the venous side of the renal circulation would become turgid, while the engorgement could not extend through the narrow efferent vessels into the glomeruli, and there would be *no* increase in arterial tension. Under these circumstances the bulk of the urine is diminished, and it is found to contain albumen and casts. Now, it is plain that increased tension from arteriole spasm, and venous congestion from heart-failure, differ merely in degree from ligature of the aorta on the one hand, and ligature of a renal vein on the other.

In cirrhosis, a certain portion of each kidney is destroyed for all functional purposes, the balance between the products of metamorphosis and the power of elimination is disturbed, and the blood becomes poisoned. This condition of the blood, as first suggested by Ludwig, Traube, and others, and confirmed by Johnson, produces spasm of the arterioles not only in the kidneys, but also in the tissues generally, the effort being, as it were, to cut off the access of impure blood. So far as it goes, this spasm is conservative, as it prevents further tissue-waste until the blood is purified and relaxation takes place; but, when frequently repeated, as its natural result there occurs hypertrophy of the muscular walls of the arteriole. But this constant obstruction to the circulation incites increased action on the part of the heart to overcome it, and soon leads to hypertrophy of the left ventricle. The whole arterial system is now subjected to a great strain, between the hypertrophied heart at one extremity and the contracted arterioles at the other, the two reacting upon each other. In the course of time slow inflammatory action is set up in the tunica intima, which, later, extends to the outer coats, and they become atheromatous, weakened, and

liable to dilatation. This condition once induced, if there should be from any cause suddenly increased pressure there is danger of rupture of the brittle arterial walls; and it is for this reason that such cases are often terminated by apoplexy. When this does not take place, the heart gradually undergoes fatty degeneration and subsequent dilatation, and the patient may die either from cardiac failure, or, if the lesion of the kidneys has advanced more rapidly, from uræmic poisoning.

Although all the changes which occur during the progress of the disease are in a measure conservative, allowing temporary approximation to a state of health, and enabling the system to support more easily the intercurrent affections arising through an impoverished blood, they nevertheless gradually impair the integrity of both organs, until they reach a point where life is no longer possible.

Fatty and amyloid degeneration, or indeed any affection of the kidneys, if of sufficient duration, may give rise to hypertrophy or dilatation of the heart, but less frequently than cirrhosis of the kidney, and to a less extent.

Besides the symptoms already mentioned in detailing the clinical history of the case before you, there are a number of others connected with inflammation of the stomach, intestines, and bronchi, which often occur during the course of the disease, and which are in themselves characteristic of it. The chief of these are vomiting, diarrhœa, and obstinate "winter-cough." Such events must also be regarded as in a measure conservative, for in nearly every instance they are the means of eliminating from the blood those waste products which can no longer be carried off by the proper emunctories. The same may be said of the skin-eruptions, and of the deposits of the uric-acid salts about the joints of the fingers and toes, both of which are often complications of combined heart- and kidney-disease. The various organs are, therefore, converted for the time being into supplemental kidneys.

Ophthalmoscopic examination alone is at times sufficient to justify a positive diagnosis as to the existence of renal disease. The appearances usually observed are white stellate spots on the retina, a swollen condition of the retinal vessels, and, in some cases, a form of uræmic cataract.

In conclusion, I desire to show you a set of specimens which strikingly illustrate the foregoing remarks, consisting of the *hypertrophied heart* and two *contracted kidneys*. They were derived from—

D. H., æt. 63, a native of Ireland, who entered the house on the 28th of January, 1874, completely unconscious. He is said to have been feeling badly for some days, in the out-wards or almshouse department, but tried to conceal his condition to avoid coming to the hospital. He was suddenly seized with convulsions on the morning of the 28th, and was brought to the wards at half-past 10 o'clock A.M.

When Dr. Guiteras, the resident physician, saw him, his respirations were 28 a minute, deep, and the regularity of their rhythm was only interrupted every five or eight minutes by convulsions which began with twitchings of the left side of the face, and extended all over the left side of the body, shaking the bed under him, and at times also involving the right lower extremity. The respirations during the fit became jerking, his face purplish, and he foamed at the mouth. There was no œdema, no effusion into chest or abdomen. A full inspiratory murmur was heard over anterior of lungs. The pupils were normal, and responded to changes of light. He could not swallow. *His urine was examined, and found to contain about one-half of its bulk of albumen.* He then received a hypodermic injection of one-fourth of a grain of morphine, a few minutes after which he had his last convulsion. After this his coma continued. His bowels could not be opened by croton oil. Two more hypodermic injections of one-fourth of a grain of morphine were given, with the apparent effect of slowing his respirations down to 18 a minute, but they continued stertorous. His pulse, which before the first hypodermic had been frequent and not weak, became very hard and bounding, coming down from above 110 a minute to 100. At midnight tracheal râles began to be heard, and between 7 and 8 o'clock A.M. of the 29th he died, without any other change in his symptoms.

The urine for examination was drawn with a catheter. Not more than four fluidounces were found in the bladder. No more urine was passed, because the bladder was found empty on post-mortem examination.

No microscopic examination of the urine was made.

I need hardly say that the symptoms for twenty-four hours before death were those of uræmia, a frequent cause of death in this most insidious form of renal disease,—contracted kidney.

But let us study the specimens before us. The kidneys are very small, not more than half as large as in health. They contain each fifteen to twenty superficial cysts, from a line to three lines in diameter, filled with transparent fluid, and each kidney contained one larger cyst which held a fluidrachm of the same fluid. Further, the cortical or convoluted portion of the organ is greatly diminished in area.

Now, these are the grosser characters of the cirrhotic kidney. But I also examined the organs microscopically, with a view particularly to studying the condition of the arterioles. I had no difficulty in demonstrating the condition referred to. The walls of the arterioles, which are brought out with great distinctness by means of acetic acid, are seen to be twice and even three times as thick as in health, exhibiting quite the relative difference shown in the drawing on the board from Dr. Johnson's little book, of which the original was made from actual specimens. I have no time in this lecture to explain, or even describe, the other minute changes in the kidney, but will leave that to lectures more directly bearing upon the different forms of Bright's disease. Our present object is more particularly to illustrate the relation between the heart-affection and kidney-affection. There is one other appearance, however, to which I cannot refrain from alluding; and that is the appearance of concentric layers of connective tissue about the Malpighian bodies, which is here peculiarly distinct: so distinct and abundant is the fibrillation, so large and well-defined are the spindle-shaped connective-tissue corpuscles, that I cannot but think it affords evidence of the activity of the elements of connective tissue already referred to as sparsely present in the kidney, in the adventitia of the blood-vessels, if nowhere else, and which must be admitted as one of the sources

of the increased amount of fibrillated tissue present in this form of renal disease, but not the exclusive one.

Of equal interest in this connection is the condition of the heart. We may truthfully say it is enormously thickened. It weighs twenty ounces,* and the muscular walls of the left ventricle are twice as thick as they usually are in a healthy organ, while the valves are practically normal. There may be a slight degree of thickening of the mitral leaflets, but the valve is physiologically sufficient, and the condition resolves itself into one of pure hypertrophy of the left ventricle, which we believe to be due to the extraordinary efforts of the heart to overcome the resistance presented by the renal and general systemic arterioles through their hypertrophied muscular coat.

ORIGINAL COMMUNICATIONS.

ATOMIZATION OF BELLADONNA IN THE TREATMENT OF WHOOPING-COUGH.

BY JOHN R. HAYNES, M.D.

DURING the wide-spread epidemic of pertussis which occurred in the winter of 1872–3, my brother, Dr. Francis L. Haynes, intrusted to my care most of his cases of that disease, with the proviso that I should use belladonna by the atomizer, in treating them.

I recorded the cases treated in this manner, and they seem of sufficient interest to merit publication.

Case I.—Lizzie M., aged twenty-eight months; coughing began October 7, 1872, and on the 12th slight whooping was noticed. The whooping increased in severity, and the paroxysms became more and more frequent until treatment was commenced (Oct. 24), when they occurred at intervals of half an hour; moist râles were heard over the entire chest. The violence of the paroxysms was shown by the presence of spots of effused blood under the left conjunctiva.

The treatment consisted in the administration of one ounce of the following mixture by the steam atomizer:

℞ Ext. belladon., ʒiss;
Ammon. bromid., gr. lxxx;
Potassii bromid., gr. xl;
Aq. dest., fʒiv.—M.

This process was repeated nearly every day until Nov. 5, making ten atomizations in all.

The following schedule shows the rapidity with which the patient improved.

Date.	No. of paroxysms in 24 hours.		Remarks.
October	24	40	Atomization commenced.
"	25	20	Atomization.
"	26	7	"
"	27	5	Atomization omitted.
"	28	6	" "
"	29	5	Atomization.
"	30	6	"
"	31	4	"
November	1	4	Atomization; no whooping.
"	2	3	" "
"	3	3	" "
"	4	3	" "

* Normal weight, ten ounces.

As may be observed, after the sixth atomization the whooping ceased, though rare paroxysms of coughing still occurred. There was no return of the whooping, and the coughing became less and less harassing, and after two weeks more ceased entirely.

Case II.—Benjamin L., aged twelve weeks; coughing commenced September 20, 1872; on the 27th whooping was noticed. Treatment was commenced on October 14. At that time, the child, though previously healthy, was emaciated and anæmic; numerous moist râles were heard over the chest, and the abundant secretion interfered so much with respiration as to cause serious alarm. Several convulsions had occurred since the onset of the disease. The paroxysms occurred at intervals of about one hour, and were very violent and long-continued.

At first but two drachms of the above-mentioned mixture were used; on the 16th the quantity was increased to half an ounce, and on the 17th to an ounce. Eight atomizations were used in all.

Date.	No. of paroxysms in 24 hours.	Remarks.
October 14	24	Atomization.
" 15	16	"
" 17	12	"
" 18	12	Atomization; no whooping.
" 20	10	" "
" 21	8	" "
" 23	5	" "
" 26	3	" "

During the treatment the child's general health improved immensely; when it was discontinued a slight cough was left, which lasted for about a fortnight longer.

In this case it is believed that timely treatment saved the child's life.

Case III.—Laura S., aged fifteen months, came under my charge February 20, 1873, having had whooping-cough for twelve weeks. During the last four weeks the cough has been very severe, and is not improving in the least.

A simple solution of ext. belladonna, of the strength of seven grains to the ounce, which was rapidly increased to fifteen grains, was administered.

Date.	No. of paroxysms in 24 hours.	Remarks.
February 20	44	Atomization.
" 21	30	"
" 28	8	"
March 1	5	"
" 4	10	"
" 6	7	Atomization; no whooping.

The subsequent history of this case was the same as that of Case II.

Remarks.—I have preserved the notes of eight additional cases treated in the same manner. Belladonna alone was used in all the cases except two, for it soon became apparent that this was the only efficient ingredient of the mixture at first employed. The strength of the solution varied from four to twenty-three grains to the ounce of water, which was the quantity generally used.

The satisfactory results related above were obtained in all the cases except one, in which no benefit whatever resulted, the disease pursuing its natural course. In one case treatment was commenced on the day after whooping became apparent, and with the effect of entirely preventing its return, although some paroxysmal cough remained for a month. Indeed, it was discovered that after

the spasmodic element of the disease had been eliminated it was useless to prolong the treatment, for the inhalations of belladonna had no influence on the subsequent cough. This, however, was of little moment, since after the whoop had disappeared the patient experienced but very slight annoyance from the remaining symptoms.

In nearly every instance atomization was followed by the appearance of the constitutional effects of belladonna,—dilatation of the pupils, dryness of the throat, and redness of the skin; slight delirium sometimes occurred. In one case where an unusually large quantity of the mixture was employed, the patient—a girl aged seven years—continued delirious for eight hours. If some of these effects did not follow the inhalation, it produced little or no benefit.

Almost always the inhalations would be followed by sleep, but exceptionally prolonged wakefulness would result. Thus, one anxious mother begged me to visit her child in the evenings, since it always slept so well after being "steamed," while another complained that if I came in the evening the baby remained awake all night.

To compare the effects of belladonna when administered by inhalation and by the stomach, I treated two cases by the latter method.

Case I.—November 28, 1872; Mary A., aged 4 years, has coughed for two weeks and whooped for last five days; at present she has about twenty-four paroxysms daily. Ordered ten drops tinct. belladonna four times a day.

December 1.—No improvement. Ordered fifteen drops four times daily, and twenty drops at night.

December 2.—Slight reddening of skin and dilatation of pupils followed each dose yesterday. The last dose produced mild delirium, which lasted all night. Whooped twelve times during last twenty-four hours. Continue taking fifteen drops four times a day.

December 3.—Whooped four times during last twenty-four hours. Slight delirium for half an hour last night, after which she slept well.

She sleeps for one or two hours after every dose. Increased dose to twenty drops four times a day.

December 6.—The belladonna keeps pupils widely dilated, and causes drowsiness after each dose. Whoops four times a day. Treatment discontinued. In three weeks the patient had entirely recovered.

Case II.—January 3, 1873.—Sarah H., aged sixteen months, has had whooping-cough for four weeks. At present about thirty paroxysms occur daily. Ordered eight drops tinct. belladonna four times daily.

January 4.—Each dose produces momentary delirium, dilatation of pupils, and intense reddening of skin. Sixteen paroxysms occurred during the last twenty-four hours. Continue treatment.

January 5.—Ten paroxysms during the last twenty-four hours. I then lost sight of the patient.

In conclusion, it seems that belladonna by the stomach does not influence whooping-cough so decidedly as when given by inhalation. But it is probable that the former method of administration will generally be preferred, on account of its greater convenience.

By either method belladonna is useless unless a sufficient quantity is given to produce some of its constitutional effects.

ANASARCA—REPORT OF THREE CASES.

BY H. E. WOODBURY, M.D.

IN the month of October, 1872, I was called to Miss L. R., æt. 14. Her condition was as follows: pulse 78, and tolerably strong; tongue covered with a soft whitish coat; great dyspnœa, and much pain in the region of the heart; decubitus on the right side; could not lie in any other position; circumference around the abdomen 37½ inches; extremities œdematous, and increased one-half in size by the effusion; eyelids puffy and transparent; complexion exceedingly sallow; bowels torpid; urine scanty; in short, all the symptoms indicated a well-marked case of anasarca.

From her stepmother I gleaned the following history. About two or three months previous to my visit, she had an attack of bilious fever. Up to that time her health had been good. The chills were very persistent, but finally yielded to quinine and arsenic, which had been given in heroic doses. Soon after they were controlled, the anasarca began to appear. Three physicians had expressed the opinion that the case was a hopeless one, before I was called. Having faith in the efficacy of certain remedies, I was hopeful, but not over-sanguine as to my prognosis of the case.

My first proceeding was to examine the urine carefully. Finding neither albumen nor sugar, I concluded that the anasarca resulted from nephritis, the latter having been superinduced by the continued use of the arsenical preparations. As the anasarca produced by arsenic generally subsides when the use of the drug is suspended, and as my patient had not taken it for weeks, I could not comprehend why the effusion had not diminished. On the contrary, it had been constantly increasing, until the poor girl had become so miserable that she longed to find in death a messenger that should bring her final relief from her suffering.

Treatment.—There was a never-failing spring of clear water near the patient's home. She was directed to drink three or four pints or even more of this water every twenty-four hours, if possible. Her limbs and body were bandaged, as much pressure being made as she could comfortably bear. The following recipes were ordered:

℞ Elaterin. (Clutterbuck's), gr. i;
Pulv. aloes, gr. v;
Podophyllin., gr. ij;
Rosæ conserv., q. s.
M. et ft. pil. no. x.
Sig.—One pill, morning, noon, and night.

℞ Vin. colchici, ʒi;
Tinct. digitalis, ʒiij;
Potass. iodid., ʒi;
Syr. sarsap., ʒi;
Aq. puræ, ʒiss.
M.
Sig.—A small teaspoonful three times a day.

Result of Treatment.—During the first twenty-four hours there was an increase of the urinary secretion, and she had evacuations of a scybalous character. The next day the amount of urine and fecal matter passed was almost incredible. On the morning of the third day the tape showed a diminution in the circumference of the abdomen of more than three inches. She could lie on her back, and her dyspnœa and cardiac pain had disappeared. She expressed herself as follows: "I feel like a new person; I shall get well." By the fifth day, on account of the rapid disappearance of the fluid, the bandages had to be tightened several times in twenty-four hours, and the doses were gradually diminished in quantity, or given less frequently. About the twelfth day the circumference of the abdo-

men was 25½ inches, and the patient, although very anæmic and greatly debilitated, was able to sit propped up in bed during a portion of the day.

Tinct. ferri chlor. was ordered, and she took it for about two weeks. Her recovery was complete, and she has experienced no return of the disease.

Case II.—Mrs. V., æt. about 45; married; full habit; weight about 170 pounds; called on me for professional advice, four years ago. She was suffering from endo-cervicitis. This yielded promptly to treatment, and a short time after she came to consult me relative to her condition, believing herself to be pregnant on account of the great increase in her size. She appeared like a woman in the sixth month of pregnancy, but could not be sure that she had ever felt any movements of the fœtus. Her lower extremities were swollen and œdematous to such an extent that she was obliged to send to New York for hose, being unable to procure any large enough here, and she could not wear the shoes she had been accustomed to wear.

Upon questioning her, I learned that some members of her family had died of dropsy,—a disease she greatly feared. She had suffered from habitual constipation. At times the urine was scanty. She complained of a pain in her back, headache, and depression of spirits. Pulse, 80; tongue somewhat coated; heart-sounds normal; temperament bilious. She suffered most from the distention in the evening. I desired to examine her urine; she declined to have this done, saying, "It was examined some years since, and found all right."

Treatment, and its results.—Bandages were applied to the limbs and abdomen. The patient was directed to drink freely of the purest water. The same recipes were ordered as in Case I., with this exception,—the elaterin was increased to gr. jss in recipe No. 1. In a very few days there was a marked improvement, and in two weeks from my first visit my ministrations ceased. Mrs. V., by following the directions I gave her, had no return of the disease for two years. A slight attack about two years ago, when she was on a visit at the North (the result probably of some imprudence on her part), yielded promptly to treatment. A few weeks ago (Jan. 20) she called on me, and expressed the opinion that her dropsy was returning. Her abdomen was much enlarged, her limbs œdematous, and her general appearance confirmed the suspicion that such was the case. The same course of treatment was commenced as on the former occasion, and at the present writing (Feb. 12) the lady is in the enjoyment of her usual health, only experiencing the inconvenience of a very slight swelling of the feet whenever she has stood or walked much during the day. I do not consider her exempt from relapses of the disease in the future, but believe that by the use of elastic stockings, and a careful regulation of the secretions, she may succeed in keeping herself comfortable for many years to come.

Case III.—Mrs. J., æt. about 60, sent for me February 16, 1874. She was suffering from excessive dyspnœa, and feared that she would "die of suffocation." Her pulse was 90, weak, and intermittent; tongue coated; abdomen greatly enlarged. Had suffered from fever, insomnia, anorexia, and constipation.

Auscultation revealed valvular (mitral) disease of the heart. She informed me that her heart had been affected for many years; of late the symptoms had become more aggravated. In her case the swelling was principally confined to the abdomen (ascites), pleural cavities (hydrothorax), and left arm and hand. For months she had been unable to take her accustomed exercise, on account of the discomfort any exertion caused.

Prognosis unfavorable.

Treatment.—The medicine ordered for this patient was the same as in Case I.; the doses at first being smaller, on account of her age. As no unpleasant results followed their administration, they were gradually increased, and carefully watched until their full effects were obtained. Pressure by bandages applied around the body. Pure water ordered to be taken freely.

Results of Treatment.—February 17. Patient passed urine more freely during the night, and her breathing is somewhat improved. Pulse 84, and stronger.

February 18.—Since my last visit she has had copious evacuations, and passed urine very freely. Says she is "a great deal better." Pulse 80, and more regular.

February 19.—Action of the medicine has been kept up. Abdomen is much diminished in size. Her breathing is painless and natural. Pulse 80. Suspend the pills; take the diuretic mixture morning and night.

February 20.—Omitted my visit to-day.

February 21.—Found her somewhat nauseated to-day, probably from taking oysters that were not fresh. Stopped the diuretic, and ordered cod-liver oil, ʒss three times a day.

February 23.—Patient is up a portion of each day, and feels very comfortable. Still wears the bandage, and takes a pill or a teaspoonful of the diuretic occasionally as her condition requires. Her appetite is improved, and she is gaining strength.

March 5.—Called on Mrs. J. to-day. She was engaged in writing when I entered, and looked as hearty and well as before her illness. She informed me that when she sent for me she never expected to feel so well as at present. In cases like hers, where the disease results from an organic derangement of the heart,—a condition we are unable to remove,—it is very satisfactory to be able to afford our patient such marked—even though it may prove but temporary—relief from suffering.

Our purpose in reporting these cases is to call the attention of the profession to two points in the treatment, the value of which we believe to have been greatly underrated in such cases,—viz., the value of pure water as a diuretic, and the value of pressure as a mechanical means for preventing infiltration of the tissues. We have used these in many other instances, and with results that have fully justified us in arriving at the conclusion that they should never be overlooked in the treatment of a case of ascites or anasarca.

WASHINGTON, D.C., March 7, 1874.

SEPTIC SYMPTOMS PRODUCED BY DECAYING SAUSAGE.

BY DR. J. BERENS.

THE following case is of such character as to seem worthy of a brief record:

Upon being called to see a female patient, æt. 30, and affected with nymphomania, I found her in bed with fever, prostration, and other well-marked symptoms of septicæmia, for which no apparent cause could be assigned. Close questioning, however, revealed the fact that, to satisfy her cravings, she had resorted to a piece of Bologna sausage, a part of which had broken off and remained within the cavity of the vagina. Putrefaction had evidently set in, followed by the result indicated above. All doubt was dispelled by the production of a vessel containing the offending piece, which had been discharged an hour previous. Although much disorganized, it retained sufficient semblance of its former self to render recognition certain.

Under the use of disinfectant vaginal washes, the woman soon recovered.

THE EUCALYPTUS.

BY A. L. FLINT, M.D., U.S.A.

DURING the past few years the *Eucalyptus globulus*, an Australian gum tree, has been successfully acclimated in Algeria, Southern France, Egypt, Cuba, and California. It is a fine-looking, fragrant evergreen, and belongs to the myrtle family. Its leaves are opposite, nearly sessile, ovate-lanceolate, faintly bluish underneath, and the trunk and branches of the young trees are similarly tinged: hence the common name, blue gum. It grows rapidly, and in its native country attains a gigantic size, rivalling the "big trees" of California. M. Gimbert, who has read a paper on the *Eucalyptus* to the French Academy of Sciences, says, "It absorbs ten times its weight of water from the soil, destroys miasmatic influence, and has the property of emitting antiseptic, camphorous effluvia."

The London *Medical Times and Gazette*, commenting on M. Gimbert's paper, remarks:

"We have no information as to whether this beneficent tree will grow in other than hot climates. We hope experiments will be made to determine this point."

Mr. V. F. B. Stanford, of Pix-house, Tinsbury, England, had already determined the matter, and wrote to that paper, Nov. 22, 1873, the following communication:

"As I have successfully reared from seeds two dozen of these trees, and as they are now growing well out-of-doors, I think some of your readers would like to know how I succeeded. I obtained the seed five years ago from South Australia, and forced it in a hot-house. In one year it was four feet high, and now, in its fifth year, it is growing rapidly in a sheltered position in the park, having attained a height of thirty feet. The first three years the tree must be taken under cover every winter, and the fourth and fifth year should be protected for several feet up with wisps of hay or straw. In-doors it should be kept in an orangery or very high greenhouse, with plenty of light and little water (?). I have sent specimens of my five-years-old tree to Milton Abbey, Dorsetshire, and to Donhead Rectory, Wilts, where, I believe, they also flourish."

The lowest temperature during the past two years in eighteen of the principal towns of England was 16°, at Sheffield. The gum trees, therefore, would no doubt do well, with a little care, on the east side of our Appalachian range, in about latitude 33°, where the magnolia is native, and, of course, at any point farther south. In California they grow quite into the foot-hills of the Sierras, where snow often falls.

The seeds of the blue gum are very small and black, somewhat resembling onion-seeds. The writer bought some two years ago while in San Francisco, and in April of last year planted them in boxes. In ten days several of the sprouts were up, and, in all, forty-five plants appeared. They thrived for a time, but absence caused them to be neglected. The San Francisco florists have eight or more species of *Eucalyptus*. The *Eucalyptus giganteus* (stringy-bark gum) is said to be a fine tree. *Eucalyptus paludosus* (swamp-gum) is planted in wet soils.

If any of the readers of the *Times*, particularly Southern medical men, wish to try, on a small scale, the experiment of raising these trees, they can easily do so at a nominal expense, say fifty or sixty cents only, for a package of seed. Mr. E. E. Moore, 425 Washington Street, San Francisco, or any other florist in that city, has the Australian seed. Eastern seedsmen may also have it.

FORT MCPHERSON, NEBRASKA, March 20, 1874.

NOTES OF HOSPITAL PRACTICE.

PHILADELPHIA HOSPITAL.

SERVICE OF DR. H. C. WOOD, JR.

Reported by JOSEPH A. MCCAULEY, M.D., Resident Physician.

CASE OF CEREBRAL SARCOMA WITHOUT AFFECTION OF THE OPTIC DISK.

R. T., 50 years of age, female, born in New Jersey, was admitted into the medical wards from the out-wards January 30, 1874, for chronic rheumatism in the right shoulder and knee. She also complained of constant and severe pain in the head.

About one month after her admission, the following phenomena were first noticed. She would get up out of her bed, catching hold of everything, and upsetting them, seemingly unconscious of her movements. Directly after this she would invariably fall backwards upon the floor, lying on her back, foaming at the mouth, and unconscious, and offering all the phenomena of a fit of epilepsy.

When these would pass off, and she was questioned how she felt, she said she did not know what she was doing, that she had no consciousness of having got out of bed, and that before the attack she had an irresistible feeling as if she were all the time going backwards.

She had three of these well-marked attacks, but frequently had slight paroxysms with the same premonitory feelings, and loss of consciousness. She was at first put on large doses of iodide of potassium, and afterwards on bromide. Sometimes she would feel markedly relieved, and we would have hopes of her improvement, and then suddenly she would relapse. She also would sometimes be attacked with persistent vomiting, which, however, yielded to treatment. On Sunday, the day before she died, a careful examination by Profs. William Norris and H. C. Wood revealed that the optic disks were normal.

The day she died I was in the ward about ten or fifteen minutes before her death, when she was seemingly very comfortable. I went into the office to write some orders, when the assistant-nurse came and reported her as having one of those epileptic attacks. I immediately went down to the ward, but found her dead. There was at no time any paralysis present in this case.

At the post-mortem examination there was found a tumor, rather elongated in shape, one and a half inches long and one inch in diameter, attached by a pedicle to the cerebrum, resting in the olfactory groove, involving the pia mater and arachnoid, destroying the olfactory nerve, and softening the brain-substance around, but not disintegrating it much.

It was of pale pink color, rather irregular, formed of many small lobules, which were joined together into larger lobules by trabeculæ of connective tissue, resembling much a salivary gland; consistence firm.

The cerebellum was found slightly congested and very much softened.

On microscopic examination of a section of the tumor, it was found to be a sarcoma, with spindle-shaped cells. The other organs of the body were healthy, with the exception of the liver and kidneys, which were congested.

TRANSLATIONS.

POISONING BY NITRO-BENZINE.—M. Limasset reports the following case in *L'Union Médicale*, February 7, 1874:

A man who had been suffering for some time from scabies was ordered a liniment containing nitro-benzine. Applying this in the evening, he retired, and awoke the following morning suffering from a slight headache. Finding it increasing, and being somewhat drowsy, he lay down and slept, but soon awoke with numbness of the fingers, ringing in the head, and vertigo. Attempting to walk, his movements were uncertain; he became more languid, and finally could not walk without assistance. At this time M. Limasset first saw him, and found him livid and cyanosed, his hands cold, finger-nails discolored, and head flexed upon his neck. He vomited, frequently, matters of a vinous red color. His person exhaled a strong odor of bitter almonds. The heart-sounds were healthy, saving a slight exaggeration of the bruit. The tongue, gums, and walls of the mouth and pharynx were all colored blue. The intellect continued unimpaired.

Fresh air was immediately admitted to the apartment, an emetic administered, and aromatic vinegar applied to the nostrils. Under the influence of these remedies the more threatening symptoms gradually disappeared. The breath and sputa remained odorous of bitter almonds, while the urine was pale, and quite free from smell.

Blood drawn forty-eight hours later had no abnormal odor; it was at first dark, but soon changed to vermilion red.

A week later the patient was quite well, save that a slight blue tint remained, and the sputa still gave out a faint odor of bitter almonds. In this case Dr. Limasset concludes that the nitro-benzine, whether or not it was changed into aniline in the blood, acted as a poison. In another case cited by him, when this substance was taken into the stomach the result was fatal. A. V. H.

RHEUMATISM IN CHILDREN.—M. Constant Picot has been at some pains to work up a subject which does not seem to have received hitherto the attention at the hands of writers on the diseases of children which its importance deserves. His observations, made chiefly at the Hospital for Sick Children in Paris, are published in a brochure (Du Rhumatisme Aigu, et de ses diverses Manifestations chez les Enfants), and seem to sustain facts which, though not in any way new, have not before appeared in a systematic and connected way. The book is very interesting, and, so far as is possible with its class, satisfactory; but we never finish reading a work on any branch of clinical medicine without a feeling of sympathy with the author, and thinking of the remark made by an old and wise man: "The human body is so wonderful that I fear you doctors will never really know much about it."

Some of the principal points of the work are summed up in a chapter of conclusions as follows:

1. Rheumatism is a somewhat common affection among children from the age of seven or eight years and upwards: it is very rare under five years.

2. The symptoms of articular rheumatism are in children generally less intense, and their duration is shorter, than among adults.

3. The cardiac complications of rheumatism are very frequent in children: indeed, they are almost the rule, and may occur even in subacute cases.

4. Rheumatic cardiac affections in children sometimes disappear without leaving a trace, but they may in other cases terminate in an organic affection of the heart which is rapidly fatal.

5. Pleurisy is not infrequent as a result of rheumatic pericarditis; it occupies the left side, but may become double.

6. Cerebral rheumatism occurs among children: it is frequently attended by clonic convulsions.

7. Chorea is often a manifestation of rheumatism; it follows, accompanies, or more rarely precedes the articular pains.

8. Rheumatic chorea very often but not always attends heart-trouble. Chorea and disease of the heart may be present at the same time in a child who has never manifested pains in the joints.

9. The most satisfactory theory of rheumatic chorea is that the disorders of motility are the result of the rheumatic action upon the nervous centres, and more particularly upon the cord and its coverings.

10. Muscular rheumatism is rare in childhood. Torticollis is often produced by a cervical arthritis.

11. *Rheumatism* in children is very often under hereditary influences.

12. That form called scarlatinal rheumatism is an affection analogous to ordinary rheumatism. Scarlatina is only the occasional cause of rheumatism.

13. Endocarditis recurring in scarlatinal rheumatism usually disappears without leaving permanent heart-lesions.

14. If we compare in a general way the acute rheumatism of childhood with that of adult life, we find that, whilst in young subjects it displays a lower degree of intensity, it has on the other hand a greater tendency to leave the articulations and invade internal organs. Visceral manifestations in rheumatism are more frequent among the young than among adults.

J. C. W.

RESULT OF THE UNION OF MOTOR AND SENSORY NERVE-FIBRES.—M. Vulpian has made a series of experiments in uniting the peripheral end of a motor nerve (the hypoglossal) with the central end of a sensory (the lingual).

Complete union having been obtained, after a certain lapse of time the course of the lingual was laid bare, severed from its central connections, and irritated by electricity, etc. No movements of the tongue were produced, save in a single case, when incomplete isolation was suspected.

M. Vulpian concludes that either the greater number of the regenerated fibres on the peripheral side of the hypoglossal nerve do not immediately take on their normal relations with the primitive muscular fasciculi of the tongue, or else that these regenerated fibres are essentially but prolongations of the fibres belonging to the central end of the lingual nerve, and, like those, possess no aptitude for causing contraction of the lingual muscles. He considers the result of his experiments to be a decided refutation of the opinion of those physiologists who believe that sensory, motor, and sympathetic nerve-fibres possess one common property, —neurility; a property which, roused into activity, gives rise to different effects according to the central or peripheral connections of the nerve-fibres in which it comes into play.—*Gaz. Méd. de Paris*, Feb. 14, 1874.

A. V. H.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, APRIL 25, 1874.

EDITORIAL.

CREMATION.

AS our readers know, the proposition so actively supported, if not originated, by Sir Henry Thompson has given rise to a great deal of discussion, and it seems as though the ceremony of burning the dead might actually be introduced among us,—if, indeed, its friends do not kill it by their absurd methods of advocacy. The only question, it seems to us, is one of convenience and hygiene: the putting forward of economical reasons, as is done, belittles and makes ridiculous the whole subject. New York has now its cremation society, led by the immortal Bergh, and some of the speeches made at its organization offer fine illustrations of that method of advocacy which, even in the hands of Sir Henry Thompson, has proven so destructive to the project. Mr. E. B. Schnabel said, *inter alia:*

"Consider the wastage of 1,400,000,000 of people [the number of the annual dead] every year. You take away the fructifying element essential to the earth. Look at the mode of cultivating the soil in Virginia. There are counties on the James River that year in and year out are cultivated without giving fructifying elements back to the soil, until absolutely destroyed and thrown into commons.

"The thing most essential for the growth of vegetables is carbonic acid. It is a grand mistake to urn your ashes. Let them be scattered over the fields. The baby born weighs two pounds: this body weighs two hundred and fifty pounds. Where did I get it? By eating wheat and fruits and meat. If I bury my body beyond fructification, I am a thief. You can appeal to the fine fat fellows, the gourmands. Tell them, if I die, my gases are given to the earth, my ashes are scattered over the earth, and nourish the seeds and plants. The ox eats the plants, and men eat the ox, and those very elements come back and live again. Physical existence must be pleasing to such persons."

So, then, we are to burn our fathers and our grandfathers in order that strawberries may be sweeter, and cream richer; that wheat may be cheaper, and beef more abundant.

O fools and slow of heart, to think men are to be moved by such arguments as these! Why, New York City, alone, yearly pours from its sewers into the abyss of the Atlantic a vastly richer freight of vegetable possibilities than the smoking fires of a world's cremation could produce.

Again, when a man is buried, what becomes of him? Just as surely must the elements out of which he is made return to the soil as though his ashes were preserved in a sepulchral urn. If the hygienic necessities of modern civilization demand it, by all means let us have cremation. But if a pretentious economy is all that is offered, far more precious are the hallowed associations of the past, and the sacred memories of our buried dead.

PRESCRIPTION-WRITING.

ALTHOUGH it is of very much more importance what is put in a prescription than how it is written, yet the reputation of a physician as an educated man, if not as a practitioner, is, we think, greatly affected by the manner as well as by the matter of the doing. We have not, however, taken our editorial goose-quill in hand for the purpose of inditing a homily upon "prescription-writing:" we merely want to call attention to an error which seems at present universal; at least we have not seen a prescription in the last two years correctly written, and we have looked at a good many hundred of those of the most prominent physicians. As every one knows, chemical nomenclature has gone into the line of the acrobat, and in the last few years somersaulted most actively. As no one seems to know, the United States Pharmacopœia has, to a certain extent, followed these changes. It is now no longer correct to write magnesiæ sulphas, or sodæ sulphas, or potassæ nitras. The name of the metal itself is employed, not that of its oxide. Thus, the substances mentioned should be respectively called magnes*ii* sulphas, sod*ii* sulphas, potass*ii* sulphas. Again, neither ammonii nor ammoniæ murias is officinal, but ammonii chloridum. *Verbum sat sap.* Look at your Pharmacopœias.

CREDULITY.

ACCORDING to the foreign correspondent of the *Medical Investigator*, Dr. Horn, a German homœopath, has discovered the veritable *corpus delicti* of cholera. It seems that a person who has swallowed similia similibus curantur in therapeutics has in the operation so stretched his intellectual throat that a boa-constrictor would hide his head for shame and envy at the human capacity for swallowing.

The cause is as follows:

"The cholera originates from two factors or agents acting upon the human organism in a very noxious manner.

"1. From a reduction of the *magnetism of the earth*, which penetrates every individual; and

"2. From the action of a *positive* electric current of the earth, of *volcanic* origin, touching our city for some time already, and rendering our atmosphere *negative*-electric by influence.

"From the effects of the *latter* electricity, an increased quantity of certain *carbo-nitrogenous* compounds arises in the blood, whereby the lower forms of cholera are produced, as those compounds or bodies affect the blood to some extent, while the malignant and, as yet, incurable forms of cholera originate by a poisoning of *prussic acid* and *hydrocyanic acid* compounds, which, under certain conditions, are developed out of the *carbo-nitrogenous* bodies."

CORRESPONDENCE.

To the Editor of the Philadelphia Medical Times:

DEAR SIR,—The leading article in the *American Journal of the Medical Sciences* for April is a study of the functions of the human brain, by Prof. Bartholow.

Mary Rafferty, æt. 30, Irish, was admitted to the Good Samaritan Hospital,—Cincinnati, we presume,—and there suffered certain things, now to be told, at the hands of a good Samaritan. Had Mary been other than "feeble-minded," perhaps she might have been in doubt as to whether the hospital in which these things were allowed was not a misnomer, and whether some other of the earlier-mentioned personages of that curious parable might not have been more rightly honored in the naming of it.

The experiments made on the vile corpus of Mrs. Rafferty seem to have been done without her assent. First, the dura mater and brain were mechanically irritated. As to results, we shall say little or nothing. Second, two needles were carried into the dura mater, and an induction-current passed through them. Third, an insulated needle was passed *into* the left posterior lobe of the brain, etc. A form of convulsion was brought on by the passing of an electric current in this case from the dura mater to the needle in the brain. Unpleasant sense of tingling occurred, but, "notwithstanding the very evident pain from which she suffered, she smiled as if much amused." A less than little knowledge was good for her comfort. But see what was next done to her. The needle was passed into the right posterior lobe of the brain, which, it seems, caused acute pain in the neck. The current was made more powerful than in the last case, when she "exhibited great distress," and proceeded to have a well-organized fit of epilepsy, followed by coma. Suppose, Dr. B., that Mrs. R.'s tortured body had been meanwhile deserted by its tenant,—life,—would this have been any form of manslaughter? Yet some of us have seen folks die in a fit.

Two days later it was meant to examine the posterior lobes by galvanism; but, strange to say, her lips were blue, she was pale, depressed, and had evident difficulty in locomotion. So the experiment was given up. Also, then and there, she had a slight fit, and also one next day, followed by palsy. It is not stated that she died, but in the next paragraph we have the autopsy described. Yet, after the facts above given, an ante-mortem section would have been in order, and might have been made, and called by courtesy an autopsy.

"*Results of cadaveric section.*—The needle-tracks we learn could be distinctly traced. They entered the brain *one and a half inches!*

"The needle-tracks were marked by lines of diffluent cerebral substance."

Dr. B. thinks needles cannot be thus used in the brain without mischief. The fatal result was due, he thinks, to the extension of the epitheliomatous ulceration to the sinus; to consequent thrombus, arachnitis, etc. Let us hope that there was no other factor in the grim equation of this poor woman's death. No man on earth can settle this question. There should never have arisen for settlement so ghastly a query. No craving for knowledge, no need for it, can be called upon to justify an act which subjects a poor feeble-minded hospital patient to experiments which cause convulsions and leave the brain in a state of local softening.

A Hospital Patient.

Not of the Good Samaritan Hospital.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

A CONVERSATIONAL meeting was held Wednesday, January 28, 1874, at 8 o'clock P.M.

Dr. I. E. Eshleman, Vice-President, in the chair.

Dr. W. B. Atkinson introduced Mr. Morton, who exhibited a specimen of Dr. Grosvenor's improved belladonna plaster, which he said was of officinal strength.

RAPID DILATATION OF THE UTERUS.

Dr. William Goodell made some remarks upon the rapid dilatation of the cervical canal, and exhibited the dilators of Drs. Wilson, Atlee, and Molesworth. He gave the history of several cases of dysmenorrhœa, anteflexion and retroflexion, in which he had obtained

marked relief by this method. When the woman is married he prefers to introduce the dilator by means of a speculum; but when unmarried, without. In tortuous and contracted cervical canals he formerly had been days, and even weeks, in gaining the cavity of the uterus by relays of the smallest of sponge-tents. But now he would undertake to tunnel out the most contracted canal in less than fifteen minutes' time. The method he recommended is as follows. The smallest of the dilators is introduced as far as it will go, and then opened. After gently stretching that portion of the canal it occupies, the strictured portion just above so yields that, when the instrument is closed, it can be made to pass up higher. Thus, by similar repetitions, little by little, the dilator tunnels its way into the uterine cavity. When this is reached, the blades are withdrawn for about half an inch, viz., far enough to keep their tips clear of the fundus, and then their handles are brought firmly together. In bad cases of metrorrhagia arising from fibroid tumors, he had successfully made use of an intra-uterine injection of the undiluted tincture of iodine, and had obtained a free channel for the escape of the fluid, by first stretching open the canal by the dilator, and then introducing the slender nozzle of the syringe between the open blades. He had also found this instrument to be very efficient in preparing the cervical canal for the admission of a very large tent or a batch of tents, by which the requisite amount of dilatation could be effected by but one operation. This he considered a step in the right direction, for it is usually not the first tent or batch of tents introduced at the first visit that do the mischief, but those introduced on the second or third visit. The pressure of the first tent produces a congestion or traumatic irritation of the cervix. Its removal abrades the mucous surface more or less, and by this raw and now actively absorbent surface are taken into the system the putrid discharges generated and retained by subsequent tents.

Dr. I. E. ESHLEMAN requested Dr. Goodell to go further in his excellent remarks, and explain to the Society how, according to his experience, the cervix might best be prepared for the introduction of the dilators, when found so contracted as to resist the introduction of the most delicate silver probe.

Dr. GOODELL replied that when the os externum is too contracted to admit the tip of the dilator, he first bores open with the pointed blade of his scissors.

Dr. T. M. DRYSDALE said he agreed to most that Dr. Goodell had stated in reference to the use of the uterine dilator, and, like him, regarded it as a most valuable instrument. As regards the uterotome, he did not consider it a dangerous instrument when properly employed. He had operated freely with it for many years, and had yet to see an unpleasant symptom from its use. He had been surprised to find so little said about the dilator in works on uterine diseases or in the journals. He had recently seen an article on the subject, which was published in a January number of the *Medical and Surgical Reporter*, by Dr. Goodell. He had read that paper with much pleasure, but wished to correct an error in it. In the article referred to, Dr. Goodell, after describing the method of using the dilator and its various applications, says, "It is but just to add that to Dr. Ellwood Wilson is the profession of this city indebted for this method of rapid dilatation, a method which bids fair to revolutionize the treatment of many uterine disorders" (*Medical and Surgical Reporter*, January 17, 1874, p. 49). This was a mistake. To Dr. W. L. Atlee was due the credit of introducing this method of treatment. The uterine dilator was invented by Dr. Washington L. Atlee, of this city, his first instrument being made under his instruction by Mr. Liemann, of New York, in 1861. The instrument became popular with the profession of that city under the name of Atlee's dilator, and Liemann published a wood-cut of it in his catalogue under the same name. He also wrote to Dr. Atlee asking him to furnish a description of the instrument and its use, for publication in one of the New York journals. Mr. Gemrig, of this city, having had repeated demands for the dilator, called on Dr. Atlee for his instrument, and from this model made others, which are sold by him and described in his catalogue as Atlee's uterine dilator. The instrument and one of its uses are referred to in the address on obstetrics, by Dr. W. L. Atlee, published in the Transactions of the State Medical Society of Pennsylvania, 1872, p. 61, but it is more particularly described in an article on "The Uterine Dilator," by Dr. W. L. Atlee, in the *American Journal of the Medical Sciences* for April, 1871, p. 395. He had used this instrument since 1861 as a dilator in cases similar to those described by Dr. Goodell, and knew that Dr. Atlee had also used it for the same purpose. He had also applied it after section with the uterotome, to keep the cervical canal patulous. Its name, however, implies its use.

He had made trial of Dr. Molesworth's instrument, but had been disappointed in the use of the smaller tube. The first time he filled the smallest one the inner fibres of the rubber ruptured, causing a large swelling or tumor to form on its side. Another tube supplied by Dr. Molesworth ruptured in a similar manner. Since then, he has had two others sent to him, but has not tested them. He would fear to use the tubes without first trying them. In reference to Wright's pessary, an objection to its use was that it became corroded when retained for any length of time in the uterus. He had used it, however, successfully in retroflexion.

REVIEWS AND BOOK NOTICES.

A MANUAL OF MIDWIFERY, INCLUDING THE PATHOLOGY OF PREGNANCY AND THE PUERPERAL STATE. By Dr. KARL SCHROEDER. Translated into English, from the Third German Edition, by CHARLES H. CARTER, B.A., M.D., etc. New York, D. Appleton & Co., 1873.

A work like that before us stands almost alone. Its style is profound, minute,—in fact, German. There is no elaboration; each short sentence contains the germ which, in a diffuse English or American author, would spread over a paragraph or page, and then serve by its very mass to conceal the truth it professed to elucidate.

To minds of a certain class, to the slaves of method, who find their solace in always knowing what and where everything is, on the shelves of whose memories every fact ever met with is always placed in its appropriate spot, ready for use, a book like this is a joy. Like the various heads of an old-time New England discourse, Schroeder has arranged everything. Everything that can happen, everything one can do or see in the lying-in room, is provided for in his scheme, under its appropriate heading. To some, the restraint of such a system is galling; yet the patient study of the manner, to say nothing of the matter, of such a work, would make many an apt observer of far more value to himself and the world. The book cannot be skimmed; it must be studied. Its sentences need often, so we have found it, to be read and read again, before their exact import is fully understood. Nor is it a book in which the undergraduate would revel, as an easy method of learning midwifery. Compact, dry, scorning illustration, it is a book for the true student, for him whose school is over only when his days are done.

The work is divided into eight parts, the parts into chapters. For want of space, we will confine ourselves to Part VI. almost entirely. As an illustration of his method, we give the scheme for the pathology of parturition:

"1. Too feeble action of the expelling forces. 2. Too great obstacles. 3. Dangerous accidents, which do not interfere with the mechanism of parturition."

Each topic is concisely but completely handled. For too feeble pains the author does not employ ergot,—using that drug only to cause expulsion of the placenta and firm contraction after delivery. He says, p. 161, "Ergot is hardly able to contribute to the expulsion of the child;" while, "in many cases, uniform and marked pains are produced by no remedy better than by opium;" which he gives in grain doses, once or twice repeated. The use of the catheter between the child and the uterus, even after the rupture of the membranes, he highly recommends in feeble or absent pains. In regard to the method by external pressure, he advises it in true breech-presentations, in combination with traction, as being less likely than the latter alone to displace the arms of the child. In the method of accouchement forcé, the author, if dilatation by the hand fails, advises incisions of the os,—"in primiparæ, where the edges of the os are very sharp," doing the operation with blunt-pointed bistoury or scissors, curved on the side, incising two or more places. He says, or his translator says for him, "The incisions need not be too deep." And again, "It is known from experience that the incisions do not tear more:" which is comforting, if we could always rely on experience.

We quote from the author's description of what forceps should be (p. 172): "As regards the head-curves of both blades, the tips of the bow must not meet when the handles of the forceps are brought together, but should be distant more than one-third of an inch. The greatest distance between the bows must be 2.7 inches. The pelvic curve need not be very great, and is gradually to increase from the lock upwards to the lip." And again, "The ideal forceps would be such as allowed a sufficiently firm hold without exerting the least pressure upon the head."

On p. 174 we find five conditions given, all of which should be present in the application of the forceps. The fifth is that "The small fontanelle must be directed forwards." In commenting upon this afterwards, he says the fifth condition is very desirable, but not absolutely necessary. Another condition is that the head must have entered the true pelvis already. If immovable above the brim, he considers, even in the case of a normal head, in a normal pelvis, the instrument dangerous, "for the forceps can only lie transversely in the outlet, and the head, if possible, always so turns within the forceps that the blades lie on each side;" and, "unless the dimensions of the pelvic cavity are uncommonly great, the frontal bone of the child may, if powerful traction be made, be broken against the promontory of even a normal pelvis."

When we consider that the author has been quoted as an advocate of the doctrine that the occipital posterior positions rotate anteriorly in the grasp of the forceps, as a rule, we are surprised at the above, and at the following, from p. 178: "As long as the large fontanelle is directed forwards, the forceps are not to be applied."

After advising turning in face-presentations, whenever possible, he says (p. 179), "Even in head-positions in cases where both operations are practicable" (*i.e.*, forceps and version), "turning is always to be preferred." In other words, all cases of movable head, head not engaged at the brim, are to be turned.

We turn now to p. 180: "The application of the forceps in a contracted pelvis may be followed by the saddest consequences to the mother and child." The panacea then, according to Schroeder, is version for all difficulties where version is practicable. In noticing, some time ago, the work of a British obstetrician, we characterized the treatment of the subject of the forceps as timid, and the views of the author before us on the same subject seem both timid and limited. Surely we do these things better in America! Is it because we employ better instruments? Do we not advocate the use of the forceps to overcome slight contraction of the brim? Is version a better resort? According to our author, it is not always a happy entrance into life. "When the breech is born, and the placental circulation disturbed, the mouth not being accessible to air, the first breath is followed by an inspiration of foreign bodies, and, consequently, by asphyxia. . . . It may also be caused by pressure on the cord." The author, therefore, advises the most rapid extraction, which he "considers without the slightest difficulties." He hastens, "not from the fear of not being able to resuscitate the child, but because, by the first inspiration, foreign bodies enter the air-passages, which may there produce a fatal inflammation." While the mother is uninfluenced by the method of delivery, or it is about as favorable as head-first labors, the child fares far otherwise. And, again, great stress is laid (p. 185) on the "foreign bodies drawn into the air-passages," which "may, within the first few days after birth, produce lobular pneumonia," and the prognosis is said to depend on the success of the treatment of the effects of premature respiration. We have no statistics at hand to show the number of children dying shortly after head-last labors, of lobular pneumonia, and can, therefore, only call attention to the above. It is our opinion, however, that children recovering from the asphyxia of cord-pressure have a much better chance of life than the above would seem to indicate.

We have here attempted a hasty notice of Chap. I., Part VI.

Perhaps no portion of the work is more clear and true than that on the induction and necessity of premature labor. As regards artificial abortion, in cases where the child cannot, by reason of tumors, or want of size in the pelvis, "pass through it anyway," "it must rest with the mother to decide, at the commencement of pregnancy, as well as at term, whether, for the sake of her offspring, she will place her own life in danger."

As to the merits of the translation, we say but little, leaving it rather for professed German scholars; but that its English is not always easily flowing, its obscurity sometimes the fault of the translator rather than of the author, is saying but part of the truth, if we believe, as we have some reason to, that certain unwarranted liberties of omission have been taken with it by the gentleman who has given it to the English-reading world.

E. W. W.

CONJUGAL SINS AGAINST THE LAWS OF LIFE AND HEALTH, AND THEIR EFFECTS UPON FATHER, MOTHER, AND CHILD. By AUGUSTUS K. GARDNER, M.D. New York, G. T. Moulton, 1874.

"To the reverend clergy of the United States, who by example and instruction have the power to arrest the rapid extinction of the native American people, to prevent the brutalizing of their bodies and the degradation of their sensibilities, this work is most respectfully dedicated by the author."

For two years—we learn from the preface, written by one who signs himself "The People's Servant"—this work has been out of print. Probably long ere this time the children have been crying for it; crying in that place where Virgil heard their voices, lamenting the life they never knew.

The appeal to the clergy by a neat dedication is a 'cute way of securing the advent under moral auspices, and surrounded with a pious halo, of a book which, however, on nearer inspection may prove as little sanctifying as that peculiar luminosity observed at times about decaying fish and fungoid vegetation.

The clergy have never shown a willingness to deal with subjects of the kind. It is doubtful whether they can do so to advantage. One truly good man, now no more, made the attempt, and with the result that whenever his name is mentioned there rises in the mind the name of his book,—let us call it "The Alligator in the Hen-roost,"—and he goes down to posterity as its author no more fondly remembered for it, we fear.

The remedy lies, if anywhere, with the medical profession: its relations to the public, and *its* relations only, are such that it can touch the subject without indelicacy and without defilement, but it must be in some better way than by books sent broadcast over the land. The weapon, though useful, is too dangerous to be fired at random.

Too often, also, there lurks in the shadow of such attempts a deep and unworthy design,—professional advertisement, in its most sinister form. We do not say that this book implies it; we have seen others far better fitted to succeed in such an attempt; but such works are always to be regarded with suspicion, till proved honest and true.

The mere writing of such books is easy. Some slight acquaintance with French literature of a certain sort, free quotation, authorities cited from every direction, some discussion—to keep up the moral atmosphere—upon the Mosaic law, some newly-furbished hypotheses and startling assertions, and, lastly, a correct tone,—nothing vulgar. It was the boast of a certain writer of dubious novels that in all his prurient volumes there was not one improper word.

The language of the book is somewhat obscure in places, probably from the fear of offending delicacy. It has its theories, vague and wild enough at times; its quotations, wilder than itself. Like all other authors of like works, the writer has his say concerning the best methods of elevating the standard of the race. He believes that the musical development of the past twenty years owes its origin in this country to the advent of Jenny Lind, and the musical furor which she excited, influencing in mind and tastes the children procreated during that time. Like all other books of the kind that we have read, this one considers the native American race as going rapidly to decay and extinction,—which may be true in exhausted New England and over-stimulated New York, but is by no means so in the West, or even in our own quiet "village."

The subject of the increase of population and the prevalence of criminal abortion is extensively discussed. The doctrine of "moral restraint" is inculcated by the book, and its author lends his authority to the theory that in a majority of cases impregnation is practically impossible for a limited number of days in the menstrual interim; and with these two feeble weapons he would stem the ever-swelling flood of luxury, extravagance, and their imperious demands. We wish him success. However, wherever children are valuable for what they can do when men and women, where the fields are wide that wait for cultivation, and the woods are thick that wait for clearing, in short, where the struggle for life is against nature and not against man, there child-life is always and always will be held sacred and dear. The lamented man whose much-ridiculed advice was, "Go West," probably did more actually to prevent infanticide than has been done by the authors of the many books of which "Conjugal Sins" is one.

GLEANINGS FROM OUR EXCHANGES.

MERCURY IN SYPHILIS.—In a paper published in *The American Journal of Syphilography*, April, 1874, Jonathan Hutchinson, F.R.C.S., arrives at the following conclusions:

That mercury is probably a true vital antidote against the syphilitic virus, and that it is capable of bringing about a real cure.—That, in practice, a good many cases are really cured by mercury; the cure being proved by the restoration to good health, and, in some cases, by renewed susceptibility to contagion.—That the probability of cure depends upon the stage of development attained by the disease when the remedy is resorted to, and upon the perseverance with which it is used.—That, in order to secure the antidotal efficacy of mercury against syphilis, it is desirable to introduce a considerable quantity into the system, and to protract its use over a very long time.—That ptyalism and other evidences of the physiological action of mercury, so far from being beneficial, are, if possible, to be carefully avoided, since they prevent the sufficiently prolonged use of the remedy.—That in cases in which the patient shows an idiosyncrasy peculiarly susceptible to mercury, the indication is to reduce the dose rather than to omit the drug.—That it is impossible to begin the administration of mercury too soon, and that it should be resorted to without loss of time in all cases in which a chancre shows a tendency to indurate.—That many cases of indurated chancre, treated early by mercury, never show any of the characteristic symptoms of the secondary stage.—That in other cases of mercurial cure of the chancre, in which yet secondary symptoms do occur, they are usually milder than if allowed to develop without specific treatment.—That when mercury does not wholly abrogate the secondary stage, it exhibits a remarkable power in delaying it.—That delayed outbreaks of secondary syphilis are to be regarded rather as proof that the administration had not been sufficiently persevering than that the remedy was not efficient.—That it is probable that the risk of tertiary symptoms is in ratio with the severity and prolonged duration of the secondary stage.—That there are some grounds for believing that the tertiary symptoms of syphilis are both less frequent and less severe in those who have been efficiently treated by mercury than in others.—That mercury, cautiously given, does not, in a great majority of instances, do any injury to the general health, and that its local inconveniences may usually be prevented.—That the doctrine of the real antidotal character of mercury, in respect to syphilis, ought to lead to much more prolonged administration of it, with the hope of destroying utterly all lingering germs of the malady.—That most collected statistics as to the duration of treatment and freedom from relapse are misleading and worse than useless, because usually the treatment was far too short to be effectual.—That it has not yet been proved that there are any special forms of syphilitic disease in which mercury ought to be avoided, although, as a general rule, it is acknowledged that it must be used with more caution in all forms which are attended by ulceration than in others.—That iodide of potassium possesses little or no efficacy against either the primary or secondary form of syphilis.—That the efficacy of mercury is often most signally proved in cases which have utterly resisted the action of iodide of potassium.—That it does not much matter whether mercury is given by the mouth, by inunction, or by the vapor-bath, provided that, whichever method be selected, care be taken to avoid salivation, purging, etc.—That the doses usually resorted to for internal administration are for the most part too large, and thus often necessitate a premature discontinuance of the

remedy.—That if one method of administration does not proceed satisfactorily, another should be tried; and that in no case of difficulty should the vapor-bath be forgotten.

ACUTE DESQUAMATIVE NEPHRITIS DURING GESTATION (*Canada Medical and Surgical Journal*, April, 1874).—Dr. John Reddy reports the case of a woman, æt. 38, and in apparent good health, whom he was called to attend during the sixth month of utero-gestation. She had been thirteen times pregnant,—seven coming to maturity, and five aborting. For three weeks she had not felt the motion of the child, and during that time had been troubled with severe frontal headache, accompanied by debility, partial loss of vision, and occasional confusion of intellect. She had also suffered some pain across her loins, and had had nausea. The backs of her hands and her insteps were slightly swollen towards the close of each day. In twenty-four hours she was only passing three fluidrachms of urine, which was dark, smoky, and opaque, and contained forty per cent. of albumen, a quantity of blood-corpuscles and renal débris, and one or two dark casts.

She was ordered to take, every four hours, a mixture containing ten grains of acetate of potassium and three drachms of infusion of digitalis to the dose, also a pill of compound extract of colocynth and hyoscyamus as an aperient, and a lamp-bath for twenty minutes. The following day she passed three and a half drachms of urine of the same character as the first. The next day there was marked œdema of the hands, feet, and legs. The face began to look puffy, and she only passed four and a half drachms of urine. For the next six days her condition grew worse; the œdema increased; loose crepitant râles were heard about the base of the lungs; she had severe headache and much dulness of vision; she only passed from two to four drachms of urine daily, so that in eight days the total quantity passed was but three ounces. It was then determined to induce artificial labor, which was done by injecting tepid water between the membranes and the wall of the uterus. There was considerable hemorrhage before delivery took place, and the fœtus was found extensively decomposed. The placenta had undergone almost entire fatty degeneration. She reacted rapidly, and the next day passed over a wineglassful of urine. She was ordered vaginal injections of Condy's fluid, ʒi to a pint of tepid water, and moderate doses of iron and quinine. The following day she passed seventeen and a half ounces of urine, slightly muddy, and containing about eight per cent. of albumen; the œdema had perceptibly abated, and her respiration was quite free. The next day she passed thirty-three ounces of urine of a pale straw color, normal under the microscope, and without a trace of albumen.

From that time she progressed steadily towards a cure, with no further trouble except an attack of crural phlebitis, which yielded readily to treatment.

It was very remarkable that no uræmic convulsions occurred during this case, when we consider the small quantity of urine passed, and the fact that many of the prominent symptoms, as headache, nausea, dimness of vision, etc., were present.

THE KAK-KE.—We have received a late number of the *Japan Mail*, containing an interesting description, by Dr. Hoffman, of a species of endemic disease, known as *kak-ke*, peculiar to the islands of Japan. The malady is said to possess considerable similarity to the Indian disease called *beri-beri*, and by the Dutch, and subsequently by other foreigners, was erroneously supposed to be identical with it. It makes its appearance regularly at the beginning of spring, first attacking only such persons as have suffered from it in preceding years, and on the approach of warm weather assails, also, those whom it had hitherto spared. The characteristic symptoms of the disease appear to be pain and stiffness in the lower extremities, accompanied by a diminution of sensibility and cutaneous œdema, beginning with the ankle-joints and rapidly extending to the knees. In addition to these symptoms there is a simultaneous occurrence of violent palpitation of the heart, to which is occasionally superadded endocarditis. The patient shows a distaste for all pursuits, and more especially those which demand exercise of intellect, while a general sense of drowsy weakness is observable. With the approach of cooler weather, the symptoms tend to disappear, even without treatment, and a slight weakness, often accompanied by anæmia, is all that now remains of the complaint; and this symptom disappears, also, in the course of the winter. In the more severe cases, however, the cure is deferred and is often incomplete, insensibility and palsy of different degrees remaining, occasionally even to the extent of complete paralysis of the upper and lower extremities, with atrophy of the part affected. In other cases, anæmia and general debility, with trembling of the limbs, remain to mark the passage of the disease.—*Boston Medical and Surgical Journal.*

NEW [?] METHOD OF REVIVING PATIENTS ASPHYXIATED BY CHLOROFORM-INHALATIONS (*The Lancet*, March 14, 1874).—Dr. Campbell, of Paris, recommends, in a late number of the *Journal de Thérapeutique*, to place persons threatened with death from inhalations of chloroform head downwards and feet upwards for between ten and fifteen minutes. He considers that death arises through syncope due to cerebral anæmia: hence the advantage of inducing an artificial cerebral congestion. The usual efforts at mechanical breathing—excitement of respiratory nerves, the drawing out of the tongue, insufflation into the lungs, etc.—may be had recourse to concurrently. Dr. Campbell mentions only one case where this method succeeded: it was suggested by Nélaton during an operation performed at Paris by Marion Sims. It would appear that the late Professor Nélaton was the first surgeon who introduced this practice. The author also thinks that the inverted position tends to drive from the lungs and trachea pent-up vapors of chloroform, which were increasing the asphyxia. It might be asked whether the stagnation in the cerebral vessels of blood charged with chloroform may not do more harm than good in these cases. Nor is it proved that death occurs generally from cerebral anæmia. The single case mentioned by Dr. Campbell has not considerable weight; but the method should be tried when an opportunity offers, and if it succeed in a series of cases, full confidence will probably be reposed in it.

COD-LIVER OIL EMULSION.—Dr. George M. Beard asserts (*Boston Medical and Surgical Journal*) that the cod-liver oil is scarcely to be perceived in the following emulsion, if the latter be *carefully* prepared. He says, *inter alia:*

"It takes a long time to make it, and the majority of druggists will slight it unless they are assured it will be ordered in large quantities. The latest modification that I employ is the following. If desired, Fowler's solution may be added to it. One of my patients, a physician, has added strychnine to it.

"℞ Glyconin, ʒix;
Ol. morrhuæ, ℥iv;
Spts. ammon. arom., ʒi;
Vini xerici, ℥ij;
Acid. phos. dil., ℥ss;
Ol. amygdal. amar., gtt. ij.;
dissolved in alcohol, ʒij.—M.

"Put the glyconin first in the mortar, then add the

oil by drops, stirring briskly all the time. When this process is completed, you will have a mass looking like and having the consistency of soft butter. Then add the other ingredients in the order mentioned; add them slowly, stirring all the time. The glyconin is made by beating yolks of eggs with a spatula until they are well broken, then add an equal measure of glycerin. It requires one or two hours to make it."

NERVOUS SEDATIVES IN GONORRHŒA (*Irish Hospital Gazette*, March 16, 1874).—Dr. Parona (*Giornale delle Malattie Veneree*) has made an extended trial of chloral as an injection both in the gonorrhœa of men and in vaginal blennorrhagia, and speaks of its value as a sedative, and also as an astringent. The strength of the injection is one gramme, or one gramme and a half, of chloral to one hundred grammes of water. The injection is used three times a day, and retained as long as possible. The best time to commence it is when the acute symptoms are subsiding, and it then not only relieves the pain and distress on passing water, but also removes the discharge. Dr. Bligh (*The Practitioner*, February) speaks highly in praise of the efficacy of bromide of potassium, both internally and locally, in the treatment of gonorrhœa. He prescribes the bromide in ten-grain doses three times a day, in combination with potassium bicarbonate and tincture of hyoscyamus, from the inception of the disease, and orders a syringeful of the following injection every four hours:

℞ Potassii bromidi, ʒii;
Glycerinæ, fʒss;
Aquæ dest., fʒiss. M.

A draught containing about half a drachm of the bromide in an ounce of camphor-mixture, at bedtime, he found to allay the chordee almost to a certainty. He claims for the bromide the power not only of diminishing the secretions and assuaging the pain of all inflamed mucous membranes, but also of producing a *special* sedative effect upon the organs of generation.

PERINEAL LITHOTRIPSY (*The Medical Record*, March 30, 1874).—Dr. Ernest Krackowizer reports three successful cases of perineal lithotripsy, which he considers to be superior to median lithotomy chiefly for two reasons: 1, in that it dilates the wound-track, the prostatic portion, and the neck of the bladder, in a more gentle and gradual manner than it is possible to do with the finger; and 2, in that it renounces beforehand the attempt to extract a stone beyond the diameter of three-fourths of an inch, considering that the track established by median lithotomy cannot be stretched safely beyond the diameter of one inch without exposing the patient to the immediate and subsequent danger of tearing and contusing the parts which constitute the way for extracting the stone.

TORSION IN AMPUTATION (*The Lancet*, March 21, 1874).—Mr. Thomas Bryant highly recommends the practice of torsion as preferable to the use of the carbolized catgut ligature. He instances a case of amputation of the fore-arm where all the arteries were twisted except the interosseous, which was ligated, and from which severe secondary hemorrhage occurred at the end of six days. He says at Guy's Hospital there have now been upwards of two hundred cases of amputation of the thigh, leg, arm, and fore-arm, in which all the arteries have been twisted (one hundred and ten of these having been of the femoral artery), and no case of secondary hemorrhage.

RESTRAINT OF HEMORRHAGE DURING OPERATIONS ON THE MOUTH (*The Medical Examiner*, April 1, 1874).—Dr. E. Andrews suggests that the troublesome and annoying hemorrhage which almost always attends operations on the mouth, and which is so difficult to control, can be effectually restrained by the use of an ether-spray apparatus. If the spray be directed upon the part to be operated on, the cold thus produced will thoroughly contract the vessels, and at the same time the general anæsthesia is kept up, the patient constantly inhaling the vapor. Dr. Andrews has performed uranoplasty in this manner with great freedom from annoyance.

STYPTIC COLLODIUM.—The Dublin *Medical Press and Circular* gives the following formula:

℞ Tannic acid, 2 ounces;
Alcohol, 4 fluidounces;
Ether, 12 fluidounces;
Canada balsam, 1 drachm;
Pyroxylin, 1 drachm, 2 scruples.

Dissolve the tannin in one ounce of the alcohol, mix the Canada balsam in the ether, add the remaining alcohol, and in the mixture dissolve the soluble cotton.

CHLORAL IN CHOLERA MORBUS.—Dr. Louis B. Bouchelle (Georgia) has employed chloral in cholera morbus for the past two years with marked success. He states that in the case of adults a single dose of twenty to thirty grains has in every instance served to quiet the stomach and bowels, and the patient drops into a refreshing slumber, from which he wakes in a few hours relieved.—*The Southern Medical Record*, January, 1874.

MISCELLANY.

WILLOUGHBY SMITH, the electrician, has recently discovered a most curious action of light in altering the electrical resistance of a metal. In experimenting for a special purpose, with some small rods of selenium, about one-twentieth of an inch in diameter by three or four inches in length, enclosed in glass tubes, with platinum terminals, he found that their electric resistance varied most capriciously, and to a very great extent. He finally traced the disturbance to the action of light,—finding that when the rods were enclosed in a dark box their resistance was perfectly normal, while even a slight exposure to light immediately reduced it some ten or fifteen per cent. On burning a magnesium ribbon at a distance of nine inches from the selenium rod, which, to cut off all disturbing action of heat, was immersed in its tube to a depth of several inches in a basin of water, the conductivity of the bar was at once increased nearly threefold, remained constant while the light lasted, and as soon as the flame went out immediately returned to its original value. The discovery excites great interest, and opens an entirely new field for investigation.—*Druggist's Circular.*

DISCOVERY OF BISMUTH.—The Paris correspondent of the London *Chemist and Druggist* states that M. Carnot, a mining engineer, reports the discovery of a bed of bismuth in the mountainous region which separates the departments of Bresse [sic: Corrèze?] and Dordogne. This had been observed by him since 1867, but only recently has he found that it could be profitably worked. It is found in combination with lead, antimony, iron, and calcium. M. Carnot has also devised a better process for the extraction of the bismuth in a

state of perfect purity. Already some two hundred and fifty kilogrammes have been supplied to the Pharmacie Centrale, Paris. This discovery is very fortunate. The high price of bismuth is consequent partly on the increased appreciation of its value as a medicine, and partly on the fact that an important source of its supply—namely, the deposit of Saxony—is nearly exhausted. At present the Bolivian mines almost exclusively supply commercial requirements, but no country will grudge France a happy turn in this or in any other respect.—*Boston Journal of Chemistry.*

A LEAD AND ZINC BATTERY.—A new form of galvanic battery invented by Pierlot is thus described in *Comptes-Rendus:* In a suitable glass or earthenware vessel is placed about a pound of chloride of lead, into which is inserted a plate of lead with a varnished lead wire attached. In the other part of the vessel is inserted an amalgamated zinc plate about nine millimetres thick, covered with a bag of parchment paper. Every two or three months water is added. The current is said to be strong and constant.—*Journal of Applied Chemistry.*

AN ODD EPITAPH.—The following epitaph is to be found in Braken churchyard, Shetland:

> He was a peaceable and quiet man, and to
> All appearance a sincere Christian.
> His death was very much regretted,
> Which was caused by the stupidity of
> Laurence Collochin Clothister, who
> Gave him saltpetre instead of Epsom salts,
> Of which he died in the space of three
> Hours after taking a dose of it.
>
> —*Boston Journal of Chemistry.*

CHOLERA AND THE CHINESE.—Dr. Taylor, a returned missionary from China, reports that during a residence of many years among the Chinese no cases of cholera came under his observation; and this absence of the disease he attributes to the fact that tea is the beverage of the country, and consequently nearly all the water which the inhabitants drink has been boiled.—*Dr. E. McClellan*, in the *American Practitioner*, March, 1874.

FOR COLD IN THE HEAD.—Hamilton recommends to mix carbolic acid 10 drops, tincture iodine and chloroform each 7.5 drops. A few drops are poured into a test-tube and heated over a spirit-lamp, and when it begins to evaporate it is placed under the nostrils. Two minutes afterwards the operation is repeated. Sneezing at first results, but relief soon follows.—*Journal of Applied Chemistry.*

TREATMENT OF CHRONIC ECZEMA OF THE GENITALS.—Dr. De Montmya recommends the use of tincture of iodine in the treatment of chronic eczema and intertrigo of the genitals, more especially combined with the use of a lotion of one part of corrosive sublimate to two hundred and fifty of water, a few drops of spirit being used to dissolve the corrosive sublimate.—*Druggist's Circular.*

ACCORDING to the *Independance Belge*, the ex-Empress of Mexico remains in the same mental condition, her bodily health being very good.

COTTON-SEED OIL.—It is said that in the United States over 150,000 tons of cotton-seed are used, annually, for the manufacture of oil. The greater portion of this product goes to the olive-growing districts of Europe, from whence, after certain manipulations, it is returned as olive oil.—*Canada Pharmaceutical Journal.*

A SICK man, slightly convalescent, was asked by a pious friend who his physician was. He replied, "Dr. Jones brought me through." "No, no," said his friend, "God brought you out of your illness, not the doctor." "Well, maybe he did; but you can bet the doctor will charge for it."

SOME person said to Sterne that apothecaries bore the same relation to doctors that attorneys do to barristers. "So they do," said Sterne; "but apothecaries and attorneys are not alike, for the latter do not deal in *scruples*." —*Baltimore Physician and Surgeon.*

ACCORDING to Medical Director Joseph Wilson, U.S.N., 81,000 lives were destroyed by malaria in making the Panamá Railroad, only forty-six miles in length; one man for every yard of the track.

IN the official examination of the hogs killed in the duchy of Brunswick during 1873, out of 92,605, 19 were found affected with trichina, and 18 with other diseases.

A POPULAR doctor in Chicago was presented with a silver-mounted skeleton, on New Year's day, by his admiring patients.—*Atlanta Med. and Surg. Jour.*

THE LATEST NOVELTY.—"St. Vitus's dance is one of the most novel of the diseases of the nervous system." —*Medical and Surgical Reporter.*

AMONG the advertisers in the London *Lancet* we notice Waukenphast [walking fast?] & Co., makers of tourists' boots.

ACCORDING to Johnston, 30,000,000 pounds of coca-leaves are annually used in South America.

NOTES AND QUERIES.

AMERICAN MEDICAL ASSOCIATION.

Arrangements have been made with the Lehigh Valley and Erie Railways to carry delegates to the session at Detroit, at reduced fare, via Niagara Falls and Canada. All who desire to avail themselves of this opportunity should address the undersigned at an early day.

W. B. ATKINSON, M.D.,
Permanent Secretary,
1400 Pine Street, Philada.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM APRIL 14, 1874, TO APRIL 20, 1874, INCLUSIVE.

BAXTER, J. H., CHIEF MEDICAL PURVEYOR.—To report to the Surgeon-General for assignment to duty. S. O. 83, A. G. O., April 16, 1874.

MCCLELLAN, ELY, ASSISTANT-SURGEON.—To carry out provisions of joint resolution of Congress, approved March 25, 1874, on the recommendation of the Surgeon-General, detailed to inquire into and report upon the causes of epidemic cholera. S. O. 85, A. G. O., April 18, 1874.